KANSAS DEPARTMENT OF AGRICULTURE

Noxious and Invasive Weed Update

Plant Protection and Weed Control

Summer 2010

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Kansas Noxious Weed News

Insects Used to Battle Invasive Spotted Knapweed

For the second year, Kansas Department of Agriculture's Plant Protection and Weed Control Program has utilized two biological control insects to help fight spotted knapweed (*Centaurea stoebe*) in Kansas.

As part of a collaborative agreement with the United States Department of Agriculture's, Cooperative Agricultural Pest Survey (CAPS) Program, two biological control insects were released this summer. The first, Knapweed Root Weevil (*Cyphocleonus achates*), is 15-20 mm long and brownish-gray in color with white spots. Adults feed on the tender rosette leaves of spotted knapweed while the newly hatched larvae tunnel into, and feast upon, the roots of the plant.

The second insect, Knapweed Flower Weevil (*Larinus minutus*), is 4-5 mm long, dark mottled brown, with a long snout. The adult weevils emerge in late spring and feed on the plants leaves with the females also feeding on the knapweed flower. Eggs are deposited in the flower where the newly hatched larvae feed on the flower tissue and seeds.

More information on biological control insects can be found at the KDA website (http://www.ksda.gov/plant_protection/).

— D. Banks

Knapweed Root Weevil (*Cyphocleonus achates*)
Photo: D. Banks, KDA

Knapweed Flower Weevil (*Larinus minutus*)
Photo: L.L. Berry, Bugwood.org

Herbicide Headlines

EPA Issues Draft Pesticide General Permit NPDES Rule

On June 2, 2010, the U.S. EPA announced the public availability of a draft National Pollutant Discharge Elimination System (NPDES) permit for point source discharges from the application of pesticides to waters of the United States. This permit is also known as the Pesticides General Permit (PGP). The PGP was developed in response to a decision by the Sixth Circuit Court of Appeals (National Cotton Council, et al. v. EPA). The court vacated EPA's 2006 rule that said NPDES permits were not required for applications of pesticides to U.S. waters. As a result of the Court's decision, discharges to waters of the U.S. from the application of pesticides will require NPDES permits when the court's mandate takes effect, on April 9, 2011. Any use patterns not covered by this proposed draft permit would need to obtain coverage under an individual permit or alternative general permit if they involve pesticide application that results in point source discharges to waters of the U.S. The general permit will provide coverage for discharges where EPA has permitting authority.

(See **Herbicide** page 2)

Herbicide

For discharges in NPDES authorized states, state NPDES authorities will be issuing the permit. EPA estimates that the Sixth Circuit's ruling will affect approximately 365,000 pesticide applicators nationwide that perform 5.6 million pesticide applications annually.

EPA's PGP regulates discharges to waters of the U.S. from the application of (1) biological pesticides, and (2) chemical pesticides that leave a residue. The following pesticide use patterns are covered under the PGP: mosquito and other flying insect pest control, aquatic weed and algae control, aquatic nuisance animal control, and forest canopy pest control. The PGP does not authorize coverage for (1) discharges of pesticides or their degradates to waters already impaired by these specific pesticides or degradates or (2) discharges to outstanding national resource waters (also known as Tier 3 waters). These discharges will require coverage under individual NPDES permits. Also outside the scope of this permit are terrestrial applications to control pests on agricultural crops or forest floors.

Invasive *Phragmites australis* at Wilson Lake in Russell County. Kansas. Photo: D. Banks, KDA.

EPA intends to issue a final general permit by December 2010. This general permit will provide coverage for discharges in the six states and other areas where EPA is the NPDES permitting authority. In the other 44 states, the state NPDES authorities will issue the permits. More information on the PGP and the court decisions that lead to the ruling can be found at the EPA's NPDES Pesticides Homepage (http://cfpub.epa.gov/npdes/home.cfm?program_id=410).

Quarantined Plant Corner

Japanese Bloodgrass (*Imperata cylindrica* (L.) P. Beauv.)

The Plant Pest and Commodities Certification Act gives the Secretary of Agriculture the authority to quarantine, or stop the sale and movement of a pest to prevent or retard the spread of a pest into the state. Currently, the state has four permanent weed quarantines which include: Grecian foxglove, purple loosestrife, all tamarisk species, and all federal noxious weeds.

One plant on the federal noxious weeds list is cogongrass (*Imperata cylindrica*) also called kunai grass, silver spike, satintail, and Japanese bloodgrass. The plant has several horticultural varieties that are sold under the names "Red Baron" or "Rubra".

Japanese bloodgrass is a clump-forming, ornamental grass with narrow leaves approximately 12 to 18 inches tall. The upper half of each leaf turns a sanguine red in early summer with the color deepening to burgundy as the summer progresses.

It should be noted that unlike most descriptions, the 'Red Baron' cultivar of Japanese bloodgrass has been demonstrated to revert back to it's aggressive, invasive, native form.

It is illegal to sell, transplant or transport this plant species, including any horticultural variety, into and within the state of Kansas.

If anyone is aware of any quarantined plants being sold, please notify KDA immediately at (785) 862-2180. For further information, please visit www.ksda.gov.

— D. Banks

'Red Baron' Japanese Bloodgrass (*Imperata cylindrica* 'Red Baron'). Photo courtesy of the Missouri Botanical Garden PlantFinder.

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Plant Protection and Weed Control staff work to ensure the health of the state's native and cultivated plants by excluding or controlling destructive pests, diseases and weeds. Staff examine and analyze pest conditions in crop fields, rangelands, greenhouses and nurseries. Action taken to control potential infestations of new pests, whether they are insects, plants diseases or weeds, is beneficial to the economy and the environment.

Our mission is to:

- Exclude or control harmful insects, plant diseases, and weeds;
- Ensure Kansas plants and plant products entering commerce are free from quarantined pests;
- Provide customers with inspection and certification services.

Invasive Species Spotlight

Blueweed (*Echium vulgare* L.)

Blueweed, also called blue-devil or common viper's bugloss, is a member of the borage family (Boraginaceae) native to southern Europe and now widely distributed throughout North America. Historically blueweed has been identified from nine counties in Kansas including Brown, Douglas, Ford, Jefferson, Leavenworth, Nemaha, Pottawatomie, Riley, and Washington, but has the potential to occur throughout the state.

Blueweed is a biennial or short-lived perennial with a large black taproot. After germination, blueweed forms a rosette of long, tongue-like leaves. When the plant bolts the second year, it forms alternate, lance-shaped, leaves along the stem that become progressively smaller toward the top. Mature plants can grow well over 36" tall with many branching, upright stems. The leaves as well as the stem are covered with large, prickly hairs with a swollen base that gives both a spotted appearance. The flowering stems of blueweed end in a cluster of short, fiddlehead-like branches with many bright blue (rarely purple, pink or white) funnel-shaped, five-lobed flowers which spread with age. An identifying characteristic of blueweed are the five pink or red stamens (four long and one noticeably shorter than the others), that project out of the flower. The small brownish-gray seeds (called nutlets) are approximately 0.10 inch in diameter with a rounded pyramid shape and roughened exterior.

The plant can aggressively infest pastures and contains pyrrolizidine alkaloids that are toxic to horses and cattle when ingested. Blueweed may also cause contact dermatitis in humans due to the plants prickly hairs.

For more information on blueweed or if you see this plant, please notify the KDA at (785) 862-2180.

— D. Banks

Blueweed plant in flower in Nemaha County, Kansas (June 2010). Photo: D. Banks, KDA.

Blueweed "nutlets" or seeds. Photo by Steve Hurst @ USDA-NRCS PLANTS Database.